



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|------------------------|---------------------|------------------|
| 10/524,076 | 02/09/2005 | Erwin Rinaldo Meinders | NL 020780 | 4189 |

24737 7590 05/24/2006

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

NGUYEN, LINH THI

ART UNIT PAPER NUMBER

2627

DATE MAILED: 05/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/524,076 | Applicant(s) MEINDERS ET AL. | |
| | Examiner Linh T. Nguyen | Art Unit 2627 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3 and 5-10 are rejected under 35 U.S.C. 102(e) as being unpatentable by Masaki et al (US Patent number 6526014).

In regards to claims 1 and 8, Masaki et al discloses a method and apparatus of recording marks representing data in an information layer of a record carrier by irradiating the information layer by means of a pulsed radiation beam (Fig. 2), a mark being written by a sequence of one or more write pulses (Fig. 4H; WP1-WP2), said information layer having a phase reversibly changeable between a crystalline phase and an amorphous phase (Column 24, lines 20-24), characterized in that, when a mark is recorded by a sequence of two or more write pulses (Fig. 4H, each block is a writing pulse), at least one of the write pulses in said sequence of two or more write pulses (Fig. 4H shows 3 write pulses) other than the first write pulse in said sequence consists of multiple, i.e. n, portions (Fig. 4H), n being an integer number larger than 1 (Fig. 4H), the i-th portion (power level of 11.5 to 13) having an i-th write power level (Fig. 4H), i being an integer number in the range between 1 and n (Fig. 4H), the i-th portion

Art Unit: 2627

preceding the (i+1)-th portion, and in that the i-th write power level is lower than the (i+1)-th write power level (Fig. 4H, i-th = WP1 is 12 and (i+1)-th = WP2 is 13).

In regards to claims 2 and 9, Masaki et al discloses a method and apparatus as claimed in claim 1, wherein the first write pulse in the sequence of two or more write pulses consists of n portions (Fig. 4H), n being an integer number larger than 1 (Fig. 4H), the i-th portion having an i-th write power level (power from 1-13mW, i being an integer number in the range between 1 and n, (Fig. 4H)) the i-th portion preceding the (i+1)-th portion, and in that the i-th write power level is lower than the (i+1)-th write power level (Fig. 4H, i-th = WP1 is 12 and (i+1)-th = WP2 is 13).

In regards to claim 3, Masaki et al discloses a method as claimed in claim 1, wherein at least one of the write pulses in said sequence of two or more write pulses consists of n portions of substantially the same duration (Fig. 4H; the 2nd and 3rd write pulses has same write power WP1).

In regards to claims 5 and 10 Masaki discloses a method of recording marks representing data in an information layer of a record carrier by irradiating the information layer by means of a pulsed radiation beam (Fig. 2), a mark being written by a sequence of one or more write pulses (Fig. 4H, 3 write pulses), said information layer having a phase reversibility changeable between a crystalline phase and an amorphous phase (Column 24, lines 15-24), characterized in that at least one of the write pulses in said sequence of one or more write pulses comprises a front portion having a write power level which is a function of time (Fig. 4H), and in that said write power level continuously increases (Fig. 4H, increase from WP1-WP2).

In regards to claim 6, Masaki et al discloses a method as claimed in claim 5, wherein the at least one of said at least one of the write pulses in said sequence of one or more write pulses also comprises a rear portion having a constant write power level (Fig. 4H, the second write pulse), which constant write power level is higher than or equal to the highest write power level in the front portion (Fig. 4H, the second write pulse is equal to WP1 which is equal to the first front write pulse).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masaki et al in view of Seo (US Publication 20030174620).

In regards to claim 4, Masaki et al does not but Seo discloses a method, wherein the information layer is irradiated inbetween the sequences of one or more write pulses (Fig. 4E, shows 2 write pulses for a 6T and 8T mark) by a radiation beam having an erase power level (Fig. 4E), the erase power level being higher than the first write power level (erase power can be consider above the dash line on Fig. 4E and when the dip start is the beginning of a write pulse for 8T, therefore, the erase power is higher than the first pulse of the writing pulse) in the first portion and being lower than the n-th write power level in the last portion (Fig. 4E; the last pulse = peak level in the write pulse is

Art Unit: 2627

higher than the erase power). At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify the multiple write pulse method of Masaki et al to include an erase power inbetween each write pulse as suggested by Seo. The motivation for doing so would have been to slowly increase the power to suppress the distortion of the recording mark.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh T. Nguyen whose telephone number is 571-272-5513. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A. Wellington can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LN

May 2, 2006


ANDREA WELLINGTON
SUPERVISORY PATENT EXAMINER